IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

Claims 1-9 (canceled)

10. (currently amended) A mutant of a parent filamentous fungus ~~fungal cell~~, the parent filamentous fungus ~~organism~~ having a preference for non-homologous recombination (NHR), wherein the ratio of NHR/HR is decreased in the mutant as compared to said ratio in said parent filamentous fungus ~~organism~~ measured under the same conditions and wherein the mutant is deficient in a gene encoding a component involved in NHR, and/or has a decreased level of a component involved in NHR.

12. (previously presented) The mutant according to claim 10, wherein the mutant is, preferably inducibly, deficient in at least one of the following genes: *hdfA* or homologues thereof, *hdfB* or homologues thereof, or both, and/or has, preferably inducibly, a decreased amount of at least one of the proteins encoded by these genes.

13. (previously presented) The mutant according to claim 10, wherein in the genome of the organism a gene involved in NHR has been replaced by a non-functional variant.

14. (previously presented) The mutant according to claim 10, wherein the mutant has an increased level of a component involved in HR.

15. (currently amended) The mutant according to claim 10, wherein the mutant is a recombinant mutant in which a gene is completely inactivated by recombination.

16. (currently amended) A filamentous fungus ~~fungal~~ which has a ratio NHR/HR less than 50, preferably less than 10, even more preferably less than 1, and most preferably less than 0.001.

17. (currently amended) The mutant ~~filamentous fungus~~ according to claim 10, which is transformed with a DNA construct comprising a DNA sequence comprising a gene of interest encoding a polypeptide of interest.

18. (currently amended) The mutant ~~filamentous fungus~~ according to claim 10, wherein the filamentous fungus is an *Aspergillus*, *Penicillium* or *Trichoderma~~species~~* species.

19. (currently amended) The mutant ~~filamentous fungus~~ according to claim 18, wherein the filamentous fungus ~~*Aspergillus*~~ is [[an]] *Aspergillus niger* or an *Aspergillus oryzae* ~~species~~.

20. (currently amended) The mutant ~~filamentous fungus~~ according to claim 18, wherein the filamentous fungus ~~*Penicillium*~~ is [[a]] *Penicillium chrysogenum* or *Penicillium citrinum* ~~species~~.

21. (currently amended) A method ~~Method~~ for producing a polypeptide of interest using the mutant according to claim 17, comprising:~~wherein the filamentous fungus of claim 10 is used~~

(a) culturing the mutant under conditions conducive to expression of said DNA sequence encoding the polypeptide and

(b) recovering the polypeptide of interest.

22. (withdrawn-currently amended) A method ~~Method~~ for producing a metabolite using the mutant according to claim 15, comprising:~~wherein the filamentous fungus of claim 10 is used~~

(a) culturing the mutant under conditions conducive to produce the metabolite and

(b) recovering the metabolite.

23. (withdrawn-currently amended) The method ~~Method~~ according to claim 22, wherein the metabolite is a carotenoid compound or a beta-lactam compound.

Claims 24-25 (canceled)

26. (new) A mutant of a parent filamentous fungus with increased frequency of targeted integration of a polynucleotide to a predetermined genomic site, the parent filamentous fungus having a preference for non-homologous recombination (NHR), said mutant being obtainable by steering an integration pathway towards homologous recombination (HR), wherein the steering comprises providing a mutant which is deficient in a gene encoding a component involved in NHR, and/or has a decreased level of a component involved in NHR.

27. (new) The mutant according to claim 26, wherein the steering comprises providing a mutant which is, preferably inducibly, deficient in at least one of the following genes: *hdfA* or homologues thereof, *hdfB* or homologues thereof, or both, and/or has, preferably inducibly, a decreased amount of at least one of the proteins encoded by these genes.

28. (new) The mutant according to claim 26, wherein the steering comprises providing a mutant in which a gene involved in NHR has been replaced by a non-functional variant.

29. (new) The mutant according to claim 26, wherein the steering comprises adding an excess of small double stranded polynucleotides to the polynucleotide to be integrated.

30. (new) The mutant according to claim 26, wherein the steering comprises decreasing the activity of at least one protein active in the NHR by adding an inhibitor of said protein(s).

31. (new) The mutant according to claim 26, wherein the mutant has an increased level of a component involved in HR.

32. (new) The mutant according to claim 26, wherein the mutant has a ratio NHR/HR less than 50, preferably less than 10, even more preferably less than 1, and most preferably less than 0.001.

33. (new) The mutant according to claim 26, wherein the mutant is a recombinant mutant in which a gene is completely inactivated by recombination.

34. (new) The mutant according to claim 26, which is transformed with a DNA construct comprising a DNA sequence comprising a gene of interest encoding a polypeptide of interest.

35. (new) A method for producing a polypeptide of interest using the mutant according to claim 34, comprising:

(a) culturing the mutant under conditions conducive to expression of said DNA sequence encoding the polypeptide and

(b) recovering the polypeptide of interest.

36. (new) A method for producing a metabolite using the mutant according to claim 33, comprising:

(a) culturing the mutant under conditions conducive to produce the metabolite and

(b) recovering the metabolite.

37. (new) The method according to claim 22, wherein the metabolite is a carotenoid compound or a beta-lactam compound.